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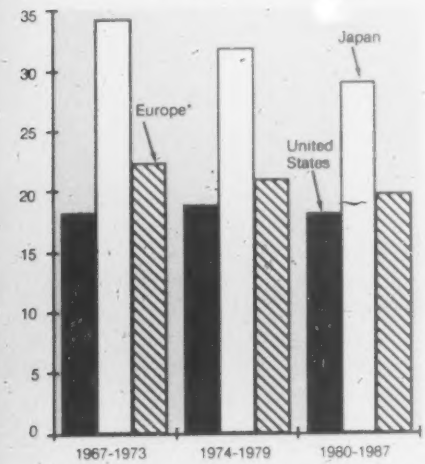
Chart 1

Investment effort

gross fixed capital formation, percent of GNP



*Germany, France, Italy, and United Kingdom

*The U.S. budget, saving, and investment**

Last December's half-hearted two-year budget accord conceded that election-year politics would preclude major, specific legislation before 1989 to work down the federal deficit. Still, the establishment of the National Economic Commission expressed bipartisan recognition — albeit somewhat inchoate — that the most significant economic challenge facing the next Administration and Congress would be to develop a credible budget plan.

The budget debate is "inchoate" because it too often fails to place the issue in its proper, macroeconomic context. Instead, the spending and taxing procedures of the U.S. government practically guarantee that particularist concerns delay and dominate decision making. In the process, the longer-term forces shaping overall U.S. performance in a competitive global economy habitually receive short shrift. These wider considerations nonetheless point to three principal objectives to be served by a forthright fiscal plan.

Objectives

The first objective is increased U.S. investment to keep abreast of our free-world competitors. Japan and many European countries now enjoy living standards within shouting distance of our own, and arguably higher in several cases. At the same time, gross fixed capital formation in 1980-87 stood at 29% of GNP in Japan and an average of 20% in the four major European countries, versus just 18% of GNP in the United States (see Chart 1). The disparity, at least vis-à-vis Japan, is too large to be offset by any feasible superiority of U.S. investment productivity (see Table 1). The relative shortfall in the quantity of U.S. investment therefore bodes poorly for the nation's future global standing.

Second, the United States has to start positioning its economy now to cope with the strains that will arise early in the twenty-first century once the baby-boom

*Statement submitted by Rimmer de Vries, Senior Vice President and Chief Economist, Morgan Guaranty Trust Company, to the National Economic Commission session in Washington, D.C., on August 9, 1988.

Table 1

Investment productivity

1980-87 annual averages

	Real GNP growth	*Investment effort**	*Investment productivity***
United States	2.4	18.1	13.1
Canada	2.9	21.0	13.7
Japan	3.9	29.0	13.3
Germany	1.5	20.5	7.2
France	1.7	20.5	8.1
Italy	2.3	21.7	10.5
United Kingdom	1.8	16.7	11.0
Korea	7.0	31.0	22.5
Taiwan	7.7	23.3	33.3

*Gross fixed capital formation as percent of GNP.
**Ratio in percent of real GNP growth to investment effort.

generation begins to retire. The larger the nation's economic pie by that time, and the faster it continues to grow, the easier it should be to satisfy the working population while assuring retirees the increasing slice that their numbers and generational equity will demand. To achieve continuing increases in per capita living standards for all, even as labor force growth stagnates, net investment in the U.S. economy must be on the order of 8% of GNP. Last year, by contrast, net investment was a mere 5.3% of GNP.

Third is the need to arrest the nation's slide into ever-deepening foreign indebtedness (see Table 2). Last year's net domestic investment was two-thirds financed by net capital inflows from abroad. Definitionally, net capital inflows are the counterpart of the nation's external trade deficit. Though the red ink on merchandise trade is running considerably less this year than in 1987, it may amount to some $125 billion for 1988 as a whole and $100 billion or more next year. Even this reduced magnitude is not sustainable indefinitely: the associated deficit on current account could add another $150 billion this year to U.S. net foreign liabilities, and a further $130 billion in 1989, carrying them well above the half-trillion-dollar mark by the end of next year.

The U.S. foreign debt buildup heightens financial risk worldwide: currency and capital markets everywhere are mesmerized and destabilized by the unprecedented absolute scale of the U.S. debt accumulation and the trade deficit that feeds it. The external imbalance at the same time may prove political poison for the relatively liberal trade and investment practices that have done so much to bind the free-world nations together since World War II. Further, and perhaps most disturbing, the imbalance may betoken U.S. incapacity to sustain *Pax Americana.*

At root, the trade deficit manifests a deficiency of national saving relative to investment. Net national saving sank below 2% of GNP in 1987, down from 5.5% at the beginning of the 1980s. To procure resources domestically to underwrite the 8%-or-so of GNP that would constitute an adequate investment rate in the years ahead will require a quadrupling of the 1987 net national savings rate to a level not seen since the mid-1960s (see Chart 2).

How can this be accomplished? The private sector plus

Table 2

U.S. net international investment position

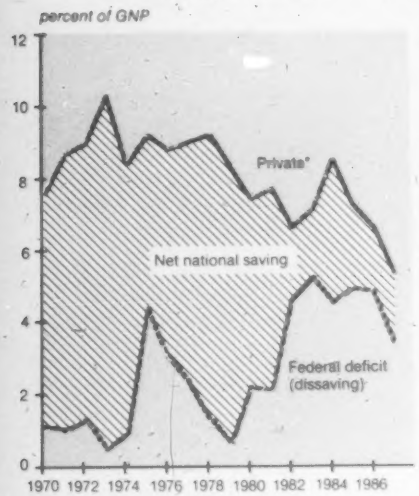
billions of dollars

	Position at end-1986	*Capital flows 1987*	*Adjustments**	*Position at end-1987*
Net international investment position	—269	—135	36	—368
U.S. assets abroad	1071	76	21	1168
U.S. official reserve assets	49	—9	6	46
Other U.S. government assets	90	—1	—1	88
Private assets	933	86	14	1033
Direct investment	260	44	5	309
Securities	133	4	10	147
Other	540	38	—1	577
Foreign assets in the United States	1341	211	—16	1536
Foreign official reserve assets	242	45	—4	283
Other foreign assets	1098	167	—12	1253
Direct investment	220	42	0	262
Securities	400	35	—12	423
Other	478	90	0	568

*For coverage, exchange rate, and price changes, statistical discrepancy, and other value adjustments.

Chart 2

U.S. saving propensities



*Including state and local governments and excluding capital depreciation

state and local governments, which run surpluses, contributed the equivalent of 5.3% of GNP to overall net national saving last year. But this positive contribution was largely offset by federal government dissaving via the budget deficit of some 3.4% of GNP. For much of the postwar period private saving has hovered around 6% of GNP but, for reasons that are not wholly clear, has drifted lower during the 1980s. Nor is it clear whether policies can be devised — regardless of political acceptability — that would be effective in raising private saving significantly without aggravating government dissaving at least dollar-for-dollar.*

Altogether, no persuasive alternative presents itself but to solve the shortfall in U.S. national saving through an end to government dissaving. This, indeed, is the key macroeconomic prize to be won through steadfast implementation of the Gramm-Rudman-Hollings (GRH) budget targets. The truth of this contention can be established by examining four of the possible budget and supporting policy scenarios that might unfold during the next presidential term.

Current policy

The first scenario assumes that last December's two-year budget accord is respected but that no new fiscal initiatives are undertaken. Because U.S. economic growth this year has held up much better than most observers expected, dipping only from an upward-revised 5% during the four quarters of 1987 to 3.3% during the first two quarters of 1988, the federal deficit on a unified basis should end this fiscal year within a cat's whisker of last year's $150 billion outcome. This performance is in fair conformity with the $144 billion GRH target for FY1988. For FY1989 the GNP outlook continues to promise growth of 3% or more through the March quarter, followed by more subdued growth thereafter as the boost from exports begins to peter out. This outlook supports a federal deficit projection in line with the $136 billion GRH target for next fiscal year.

Unfortunately this does not mean that all is well on the budget front — not, certainly, on the basis of current-law fiscal policy in conjunction with a credibly counterinflationary monetary policy. Beyond FY1989, assuming the economy proceeds along its potential growth path of about 2.6% annually — aided by renewed, but moderate, decline in the dollar — there is little reason to postulate a federal deficit trend substantially better than is depicted by the Congressional Budget Office (CBO). CBO's "baseline" outlook last February put the FY1993 deficit at $110 billion (see Chart 3). Reestimated today, this figure might be $20 billion lower (see Table 3), thanks to the bonus from this year's strong real GNP gain and using slightly more favorable technical assumptions than CBO's concerning both revenue and spending. Even so, the deficit still would amount to 1.3% of GNP in FY1993 instead of zero as GRH mandates.

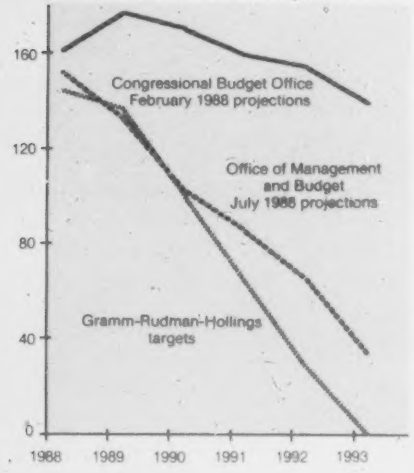
Quite as troubling, this baseline "current policy" scenario foresees no progress at all on

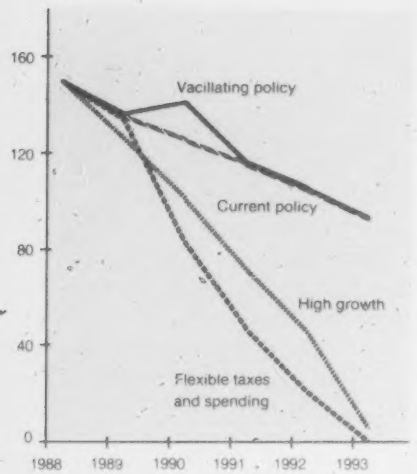
*The heavily tax-favored Individual Retirement Accounts permitted prior to the 1986 tax reform seem to have been at least modestly successful in boosting private saving, but at the same time increased government dissaving.

Chart 3

Federal deficit outlook

unified basis, fiscal years, billions of dollars





the other twin deficit. Goods trade would be in the red five years from now by much the same magnitude as today. The current account deficit would be substantially greater than today, reflecting steeply rising net interest payments on a net foreign debt that would reach some $1.3 trillion — more than triple the end-1987 figure. Such unsatisfactory results on the external front could only exacerbate the financial and political risks to the United States touched on above. Nor would domestic economic performance be up to the longer-term need. Table 4 shows that net saving would reach some 3.6% of GNP by 1993 — almost twice last year's level but still less than half what an adequate investment effort would require. Altogether, muddling on along the current-policy path would do little to correct the existing deficiencies in U.S. economic performance.

The "high growth" delusion

President Reagan's last budget proposal counted on economic growth averaging over 3% annually to wipe out most of the federal deficit by 1993. Vice President Bush also apparently would depend on high economic growth to eliminate the deficit with no increase in taxes. His proposal includes a "flexible freeze" on spending. The freeze would aim to hold growth in overall spending close to zero in real terms, or close to the rate of inflation in nominal terms. The flexibility would accommodate the upward momentum behind Social Security, Medicare, and other entitlement programs, provided cuts were made in discretionary spending.

The Vice President's thinking is correct inasmuch as low growth — let alone recession — would be counterproductive for deficit reduction. Moreover, growth would not have to run unthinkably high to eliminate the budget deficit by FY1993. Sustained growth averaging 3% annually would suffice, were spending effectively restrained. In addition, Table 5 indicates that the fast growth of economic activity would carry forward the vigorous expansion of business investment that has been a highly positive feature of 1988 to date.

Unfortunately, without market- and investment-oriented structural improvements in the U.S. economy — supply-side improvements that are nowhere in sight — pursuit of a 3% growth rate in the years ahead would strain domestic resources. Although capacity utilization in U.S. manufacturing is several percentage points below the peaks recorded in 1973 and 1979, it stands 2.6 percentage points above its 20-year average. Besides, the nation's 5.4% unemployment rate is within the 5%-6% range that most economists believe to be the lowest consistent with stable inflation.

Whereas the "current policy" baseline scenario with a 2.6% growth rate would keep inflation to about 4.7% over the next four years, boosting growth instead to 3% and retaining the same moderate dollar decline would kick up the inflation rate an average of one percentage point during the period; by 1993 inflation could be pushing 6.5% and accelerating. Moreover, on this dollar assumption, the nation's trade deficit would worsen beyond 1989 because the higher inflation would eat away U.S. competitiveness and the fast

Table 3

U.S. economic policy scenarios

selected indicators in 1993

	Current policy	High growth	Flexible taxes and spending	Vacillating policy
*Federal deficit**	—92	—6	7	—93
Federal Funds rate, 1989-93 peak (%)	8.9	8.1	8.7	9.1
*Dollar real effective exchange rate***	—9	—10	—14	—10
*Real GNP****	2.6	3.0	2.4	1.9
GNP deflator	4.8	6.7	4.6	4.0
Unemployment (%)	5.3	4.2	6.4	7.1
Billions of dollars				
Trade balance (CIF)	—124	—142	—10	—84
Current account	—170	—176	—35	—158
Net external assets	—1290	—1310	—910	—1250

*FY1993, billions of dollars, unified budget basis.
**Broad index, cumulative percent change from July, 1988.
***1989-93 annual average percent change.

Table 4

Saving and investment

percent of GNP

		1993			
	Base 1987	Current policy	High growth	Flexible taxes and spending	Vacillating policy
Gross domestic saving	12.6	14.2	14.8	15.0	12.7
Private sector	15.0	14.4	13.3	14.1	13.3
State and local governments	1.0	1.3	1.6	0.8	0.9
Federal government	—3.4	—1.5	—0.1	0.1	—1.5
*Net domestic saving**	1.9	3.6	4.0	4.3	1.8
plus: Net foreign capital inflows	3.5	2.2	2.0	0.6	2.4
equals: Net domestic investment	5.4	5.8	6.0	4.9	4.2
*Gross fixed capital formation***	15.0	15.4	15.6	14.5	14.1
Personal saving (percent of disposable income)	3.8	4.5	3.1	5.0	14.1

*Defined here as gross domestic saving less economic depreciation plus statistical discrepancy.
**Gross private domestic investment less inventory investment.

growth of activity would have to be domestic-demand-driven. In principle, the trade damage could be contained by aggressively devaluing the dollar in order to twist high growth in favor of external demand. The price, however, would be still higher inflation — perhaps into double digits by the early 1990s.

These inflation and external risks belie the notion that high growth can bring the budget deficit to a painless end. It could defer political pain for a time. But the eventual economic cost of adjustment then would be all the greater.

Flexibility and balance

Most often when a country faces the need to correct unsustainable imbalances it is rigidity on some single issue that does most to obstruct progress. The hang-up may concern the exchange rate, public-sector wages, or perhaps some treasured spending program.

In the U.S. situation of today, the principal hang-up seems to be taxes, though entitlement spending comes in a close second. If growth is held to a prudent pace, an inflexible refusal to raise taxes would permit the budget to be balanced by FY1993 only by outright spending cuts. The cuts would have to be on the order of 1.5% per annum in real terms relative to spending under the flexible freeze proposal, a spending stringency that strains credulity.

It therefore must be recognized that flexibility is needed on both taxes and spending if there is to be any chance of developing a prudent and credible budget strategy and policy package for the next four years. Obviously,

Table 5

Real final demand growth, 1989-93

annual average percent

	Current policy	High growth	Flexible taxes and spending	Vacillating policy
Consumption	2.4	2.6	1.9	2.0
Investment	2.9	3.8	2.2	0.8
Exports	6.8	7.6	7.8	6.3
Imports	3.3	4.1	2.9	3.5
Government	1.0	0.5	0.8	1.1
GNP	2.6	3.0	2.4	1.9

too easy acceptance of higher taxes could open the door to spending laxity. But a judicious flexibility on tax increases may be the sole means available to purchase spending restraint.

The benefits of deficit reduction within the GRH horizon depend more on the overall magnitude of deficit reduction than its composition. From an efficiency standpoint, a fiscal package should preferably rely on consumption taxes and further cuts in consumption-subsidizing expenditures; if income taxes must be touched, it should be by closing loopholes rather than by higher rates. This tilt would in principle help shift resources toward more productive capital formation — something not adequately addressed in the 1986 tax reform. To be politically viable, however, a fiscal package will have to be carefully crafted to elicit sacrifice from all segments of society yet also meet diverse economic and social concerns. Major elements of such a package likely would include a temporary freeze in nominal terms on both defense and nondefense outlays; a slowing of growth in entitlement spending; increased gasoline and sin taxes; and a closing of loopholes in personal and corporate income taxes.

Suppose the package were legislated in time to be phased in over a three-year period, providing *ex ante* deficit savings of $40 billion in FY1990, $80 billion the next year, and $120 billion in FY1992 and the years thereafter. The *ex post* benefits for both the budget and the economy would depend crucially on the success or otherwise of monetary policy in achieving real GNP growth approximately at its potential rate. To compensate for the drag on growth implicit in the fiscal package, monetary policy would have to ease and accept a lower dollar trajectory than in the baseline scenario.

The outcome summarized in Tables 3, 4, and 5 as the "Flexible taxes and spending" scenario would meet the GRH mandate to eliminate the budget deficit by FY1993 but yield real GNP growth slightly below potential. It thereby would envisage an unemployment rate of 6.4% by 1993, or one percentage point higher than today. This additional slack, while hardly welcome in itself, would serve to hold down inflation despite the lower dollar and, by contributing to domestic demand restraint, create room for external adjustment. By 1993 the trade deficit would be slashed by over $100 billion relative to the baseline, and the current account deficit by considerably more, thanks to lower interest rates. The foreign debt buildup would be much attenuated. U.S. net liabilities would be distinctly below $1 trillion in 1993, instead of the $1.3 trillion foreseen on the baseline. External risks to the U.S. economy would be reduced accordingly. Moreover, net national saving would run significantly higher — by some 0.7% of GNP — than under current policies, which would mark a good first step toward an adequate saving effort. Thus a flexible and balanced fiscal program, resolutely pursued, can yield a handsome payoff within the next presidential term.

Policy vacillation

Unfortunately, even with the best of intentions, all may not go well. Negotiated by the political calendar, as it would be, fiscal ad-

justment may prove inopportune in its timing, perhaps being launched just when the economy is losing momentum for other reasons. Or, recalling the example of the late 1970s, policy vacillation may engender a confidence-crippling malaise. Recession then may be the outcome. Almost surely that would doom a multiyear deficit-reducing package.

Though not at present the central expectation, it is not hard to see how a mild recession could develop before the end of 1989 in the train of policy vacillation. The rise in U.S. interest rates and the strength of the dollar this year will take toll of both domestic and net external demands on the economy six to nine months hence, perhaps more severely than most observers assume. Yet inflation expectations currently are on the rise, in part because of this summer's drought, and may not quickly back down. Moreover, following this year's elections, the Federal Reserve and the financial markets may judge the economy still to be growing too fast. They also may take a jaundiced view of fiscal promises in advance of fiscal delivery, especially if the incoming administration looked likely to give way to the myriad demands for higher spending. Interest rates could rise considerably above current levels, eventually forcing the economy into recession.

That would hardly be the moment to embark on fiscal adjustment, at least not consciously. Indeed, there is a risk here that the first installment of a contractionary fiscal package could come on stream just in time to compound a mild recession precipitated by fading trade gains and protracted high interest rates. In that event it would be neither rational nor politically plausible to persevere with subsequent cuts as specified in the package until the economy had staged a convincing recovery; after all, to intensify fiscal contraction in recessionary conditions would merely prolong the downturn and compound the underlying budget problem. Thus in the "vacillating policy" scenario presented in Tables 3, 4, and 5, a brief recession in 1990 coinciding with a $40 billion dose of deficit-reducing measures causes the budget deficit three years later to be no lower than under the current-policy scenario envisaging no recession and no effort at deficit reduction. The implication is not that fiscal correction will not work but rather that its accomplishment will be gravely impeded if circumstances or policy vacillation undermine confidence.

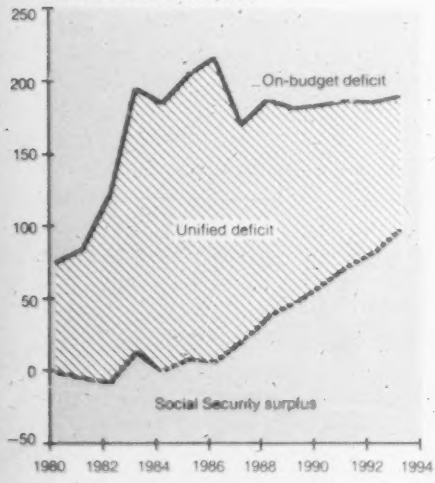
A fresh pretext for fudging the fiscal issue has blossomed this year in the form of the mounting surplus in the Social Security system (see Chart 4). Under the GRH law these funds are already "spoken for" — they could account for almost half the deficit reduction planned between now and 1993. This means that even if the GRH cuts are achieved, the on-line budget still will be $70-$100 billion in deficit in FY1993.

Yet, proposals already have been made that would squander the surplus. One is to use the surplus to bankroll a public investment bank which, among other things, could rescue stricken banks; another is to spend the surplus on the nation's decaying infrastructure; and a third is to fund more generous Medicare benefits. As the surplus grows, so do the number of proposals to spend it.

Chart 4

The federal budget and the Social Security system

billions of dollars, fiscal years



The problem is that these proposals ask the surplus to do three things at once: first, to do what it was originally intended for, that is, to help support the baby-boom generation when it retires; second, to fund excess spending in the rest of the federal budget; and third, to launch important people's pet programs. Only one objective can be achieved at a time. Currently, productive investment of the retirement fund is being delayed until the overall budget can be balanced. Some of the new proposals go a step further, sacrificing both budget balancing and retirement provision for the sake of current programs.

The risks to the Social Security surplus highlight the importance of rapid progress on the budget deficit. Even if the GRH targets have been achieved in 1993, further progress on the budget will be needed. The on-line deficit must be eliminated so that the Social Security surplus can begin to be productively invested. This could involve buying up government securities, which would free up saving for private investment. Or it could be accomplished by privatizing the surplus and allowing individuals to direct its investment.

Higher saving and investment are the fundamental rationale for implementation of the GRH budget targets and the productive investment of the Social Security surplus. The alternative is continued "crowding out" of private investment by government borrowing, and continued dependence on foreign capital. Ultimately, this would yield a weak, undercapitalized U.S. economy in a poor position to meet the competitive pressures of the next decade and the demographic challenge of the next century.

Conclusion

The fiscal actions to be taken in the next four years will have major implications beyond the narrowly budgetary domain and the limited time horizon of the Gramm-Rudman-Hollings targets. Neglect or vacillation would undermine confidence, expose the U.S. and world economies to financial instability and trade protectionism, and leave the U.S. economy starved of saving and investment as well. Though early action could not extinguish these risks, delay would only compound the ultimate cost of corrective action.

Little can be done to insulate the economy from shocks or mistakes. But something can be done to sustain confidence. The recommendations to be put forward by the National Economic Commission can be constructive for confidence, provided they are both firm and reflective of developing bipartisan consensus. Still more important is that the incoming Administration and Congress take up the fiscal issue promptly next January, set goals with clarity, and move systematically toward their implementation.

In particular, U.S. fiscal action should not be made contingent on successful negotiation of a complex, broad-ranging, and coordinated international program for the better management of the global economy. Mere promise of U.S. fiscal action, however, is unlikely to induce compensating policy changes by the other G-7 members; some still bemoan, for example, the inflationary excesses that swept the world economy following the launch of the "locomotive" (more correctly, "convoy") strategy at the Bonn Summit of 1978, never

mind that much of the inflation in fact emanated from the second oil shock.

International cooperation remains a laudable objective. Potentially it could alleviate today's burden of adjustment on the U.S. economy. But in this increasingly nationalistic world, it is hard to muster volunteers in Asia or Europe willing to surrender trade surpluses with the United States any sooner than they must. If the United States is seen to forge ahead with fiscal correction, by contrast, U.S. trade partners will see their self-interest in basing their growth more firmly on their own domestic potential — as Japan, for one, has done during the past twelve months.

Once the November elections are out of the way, the U.S. government will enjoy its quadrennial opportunity to correct shortcomings of the past and set a new economic course to boost national saving and investment for prosperity in the decade ahead. The opportunity could, of course, be wasted, as it would be if the new Administration and Congress vacillate on the macroeconomic issue, catering instead to myriad special demands. Confidence then would erode and inflation fears intensify. The economy would slide deeper into the hole of mounting foreign debt and financial instability.

The opportunity will be grasped best by unwavering reassertion of fiscal discipline: first, to honor the GRH targets; from there, going on to translate the financial surpluses of the Social Security system into productive real investment. A credible initiative to these ends, if launched promptly by the next President and Congress with the active support of the Federal Reserve, not only would advance basic domestic goals, it also would enhance U.S. standing around the world, and lay to rest today's doubts of U.S. capacity for continuing leadership.

Statistical appendix

For key to data in tables see pages 18 and 19.

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Effective exchange rates — industrial countries

Index numbers, 1980-82 average=100.

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Neth-erlands	Spain	Swit-zerland	Den-mark	Norway	Swe-den
Nominal against 15 other industrial-country currencies																
1983	114.2	100.8	107.8	92.0	87.3	107.5	90.3	91.6	103.6	90.0	105.0	78.4	111.5	96.4	99.5	82.2
1984	122.3	97.3	112.9	94.2	84.4	107.3	86.7	88.1	103.6	88.9	103.9	77.4	110.5	93.9	97.8	84.3
1985	127.0	92.8	115.9	76.3	85.5	107.8	82.1	88.2	104.2	89.6	104.0	75.6	109.5	95.1	95.6	83.9
1986	106.0	87.6	150.1	61.4	87.4	116.1	82.9	80.7	107.8	92.9	110.3	73.4	118.1	99.7	89.2	81.6
1987	94.1	89.6	164.4	58.3	87.1	122.0	82.3	79.0	110.8	95.6	114.6	73.1	123.1	102.8	85.7	80.1
1987																
August	95.7	90.0	162.7	59.8	86.8	121.3	81.5	78.9	110.1	95.2	114.1	73.6	122.6	101.3	87.3	80.2
September	93.9	90.3	165.4	60.5	86.9	121.5	81.8	79.6	110.4	95.3	114.4	74.6	122.7	101.0	87.4	79.7
October	93.4	90.7	165.1	58.9	86.7	121.3	81.7	80.0	110.7	95.1	114.5	75.9	122.3	101.3	87.0	79.6
November	90.0	89.3	171.2	54.3	86.7	123.6	81.2	81.5	110.9	95.6	115.9	75.6	125.4	102.5	85.2	79.2
December	87.4	89.4	178.6	55.1	87.0	123.8	81.4	81.9	110.8	95.8	115.9	75.2	126.9	103.0	83.5	78.9
1988																
January	87.4	91.0	179.8	55.1	87.2	123.4	81.3	81.2	110.7	95.6	115.8	74.8	126.5	103.0	84.6	79.1
February	88.2	92.6	179.3	56.0	86.8	122.9	81.0	80.8	110.7	95.4	115.6	75.0	125.1	102.8	85.4	79.7
March	86.8	93.7	180.7	57.0	86.3	122.8	80.5	83.5	110.7	95.2	115.4	75.5	123.9	102.3	85.1	79.9
April	85.8	94.6	183.2	57.5	85.9	122.6	80.1	85.2	110.6	94.9	115.3	76.2	123.6	101.5	86.1	80.1
May	86.1	94.5	183.7	60.0	86.1	122.1	79.7	85.4	110.4	94.8	115.0	76.0	122.2	101.2	87.1	80.4
June	87.6	96.6	182.6	63.7	86.1	121.5	79.4	83.4	110.1	94.5	114.3	75.6	121.8	101.6	87.1	80.3
July	90.1	98.1	177.4	65.0	85.6	120.7	79.2	83.2	109.7	93.9	113.3	74.8	121.2	100.9	86.3	80.5
June 24	87.8	97.5	181.5	65.2	86.0	121.2	79.3	83.5	109.9	94.2	113.9	75.4	121.9	101.4	87.3	80.3
July 1	89.7	97.4	177.2	64.6	85.9	121.1	79.3	82.4	109.8	94.2	113.7	74.9	122.0	101.4	86.7	80.7
8	89.7	97.9	176.7	64.5	85.9	121.0	79.2	82.7	109.9	94.0	113.8	74.8	121.5	101.1	86.6	80.6
15	90.3	98.1	177.2	64.7	85.6	120.7	79.2	82.4	109.7	94.0	113.4	74.8	121.5	100.8	86.5	80.6
22	90.0	98.7	177.5	65.5	85.4	120.5	79.1	83.5	109.7	93.9	113.2	74.7	121.1	100.7	86.1	80.4
29	90.1	98.0	178.5	65.5	85.3	120.3	79.2	84.3	109.7	93.8	112.9	74.8	120.7	100.7	86.2	80.3
August 5	90.6	98.4	178.2	65.6	85.1	120.1	79.2	84.3	109.6	93.6	112.7	74.9	120.2	100.5	86.2	80.2
Real against 15 other industrial-country currencies																
1983	112.7	102.6	96.8	101.8	94.7	101.0	101.1	93.1	102.0	88.6	100.8	88.8	105.1	100.4	102.0	90.8
1984	119.6	100.1	97.8	106.4	97.0	98.0	101.8	90.2	103.0	85.9	97.8	91.0	100.1	99.2	100.5	96.0
1985	121.7	96.3	99.0	88.9	100.4	96.6	100.2	92.8	103.2	85.3	96.5	92.3	97.9	101.2	99.3	96.9
1986	100.9	93.3	122.1	78.3	103.7	103.6	102.5	87.2	106.3	84.5	101.2	93.8	105.4	107.3	96.9	95.9
1987	90.2	96.4	127.9	80.3	105.1	106.7	103.2	87.4	110.0	84.2	104.3	95.7	109.3	111.5	100.3	95.2
1988																
February	85.5	100.2	135.9	79.8	103.9	107.0	104.2	90.5	109.5	82.3	102.3	101.1	109.9	112.5	101.8	96.6
March	84.2	101.7	136.7	81.5	103.6	106.9	103.0	93.7	109.6	81.9	102.7	99.9	109.1	112.4	101.4	97.2
April	83.3	103.0	137.6	82.6	103.2	106.5	102.2	96.0	109.1	81.6	102.8	101.3	108.4	111.5	103.1	97.3
May	83.7	103.0	137.4	86.6	103.5	106.3	102.0	96.3	108.3	80.9	102.5	100.7	106.8	111.8	104.7	97.8
June	85.4	104.7	135.6	92.5	103.6	105.8	101.6	94.1	109.5	80.5	101.9	100.2	106.2	111.9	104.0	97.7
July	88.1	106.3	131.6	94.8	103.1	105.0	101.2	93.7	110.2	79.7	101.4	99.1	105.1	110.6	103.1	97.9
Real against 18 other industrial-country and 22 LDC currencies																
1983	114.9	104.6	100.4	102.0	94.4	100.6	100.8	93.1	102.1	88.2	99.5	89.2	105.1	100.3	101.9	91.0
1984	120.8	102.6	102.4	106.7	96.4	96.8	101.0	89.7	102.6	85.0	95.9	91.2	99.8	99.0	100.5	95.6
1985	123.3	99.0	104.2	89.6	99.9	95.6	99.7	92.2	102.8	84.5	94.8	93.0	97.7	101.1	99.7	96.7
1986	106.4	94.3	126.7	80.2	104.2	104.7	103.8	88.0	107.1	85.0	101.1	96.2	107.2	107.8	97.7	96.6
1987	96.3	96.5	131.6	81.9	106.2	109.0	105.7	88.9	111.5	85.4	105.2	99.2	112.2	112.4	101.2	96.5
1988																
February	90.9	99.6	138.7	81.1	104.7	108.9	106.6	91.9	110.9	83.4	103.0	104.5	112.6	113.3	102.8	97.7
March	89.5	100.9	139.3	83.0	104.4	108.7	105.3	95.2	110.9	82.9	103.3	103.2	111.7	113.2	102.4	98.3
April	88.7	102.1	140.1	84.1	103.9	108.2	104.3	97.5	110.3	82.5	103.4	104.5	110.7	112.3	104.1	98.4
May	89.0	102.1	140.0	87.8	104.0	107.8	103.9	97.6	109.3	81.8	102.9	103.7	108.9	112.6	105.7	98.8
June	90.5	104.0	138.6	93.4	103.9	107.0	103.3	95.3	110.4	81.2	102.0	103.0	108.2	112.6	104.8	98.6
July	92.8	105.9	134.8	95.5	103.3	105.8	102.5	94.6	110.9	80.2	101.1	101.5	106.8	111.2	103.9	98.7

Real effective exchange rates — developing countries

Index numbers, 1980-82 average=100.

	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela	Hong Kong	Indonesia	Korea	Malaysia	Philippines	Singapore	Taiwan	Israel	Turkey
1983	71.6	86.0	89.3	104.9	79.0	98.5	117.3	95.0	96.2	97.6	113.9	96.1	101.8	94.6	120.8	94.2
1984	80.2	85.7	90.1	99.6	91.9	105.8	85.9	99.5	96.0	96.5	119.7	107.9	102.5	97.1	119.5	89.6
1985	71.0	84.8	79.5	85.3	90.4	96.5	92.7	103.3	93.7	88.7	115.7	114.1	95.2	94.3	106.5	88.8
1986	60.8	74.2	68.4	67.4	65.0	96.3	85.4	93.3	70.6	82.0	94.0	89.8	79.8	88.4	100.7	70.6
1987	53.3	73.6	65.1	63.1	66.7	107.7	60.2	89.2	53.9	84.0	87.9	86.5	73.3	93.4	97.2	62.6
1987																
August	54.6	71.2	66.1	63.5	69.6	120.0	64.3	89.5	55.1	86.1	88.5	88.3	74.3	97.4	99.7	63.2
September	53.5	71.1	65.3	62.8	71.5	121.1	64.6	90.2	54.0	85.0	88.4	87.1	73.6	97.4	99.8	61.7
October	53.9	73.3	64.3	62.2	73.6	120.0	65.0	90.0	54.3	85.7	87.1	89.2	73.1	98.1	100.6	60.8
November	49.3	73.9	61.7	60.4	73.6	104.9	64.2	89.1	52.8	85.3	84.9	87.4	72.0	94.9	99.3	58.7
December	49.0	74.7	61.4	60.1	67.3	80.2	63.3	87.2	51.1	84.4	82.8	87.8	70.2	96.0	99.0	62.4
1988																
January	49.4	76.9	59.1	61.6	72.6	76.6	62.9	85.8	51.0	85.4	81.5	87.5	70.1	95.6	100.2	62.9
February	50.9	78.0	60.7	67.2	79.0	85.9	62.9	85.9	51.7	88.0	80.8	87.6	70.8	96.2	101.4	63.4
March	51.7	76.9	59.8	66.8	80.1	104.2	62.7	86.5	50.9	89.1	80.2	87.4	70.3	95.0	102.0	64.4
April	52.3	78.3	59.1	66.3	79.7	121.4	62.2	86.6	50.5	89.3	79.7	86.4	70.3	94.6	102.5	65.1
May	55.1	78.0	60.0	64.9	80.0	131.7	62.4	88.5	50.8	90.4	79.4	87.8	70.3	94.3	104.5	64.7
June	57.0	80.7	60.3	65.2	81.4	145.0	63.2	90.2	51.8	92.5	80.8	90.8	70.6	93.0	105.5	65.0
July	61.1	80.7	62.7	66.3	83.9	193.3	64.2	90.8	53.4	95.4	81.6	94.5	71.5	94.9	109.1	66.1

International banking market size

at end of period, billions of dollars

	1982	1983	1984	1985	1986	1987			
					Dec	Mar	Jun	Sep	Dec
Gross claims									
Eurocurrencies, on residents and nonresidents	**2 146**	**2 253**	**2 359**	**2 833**	**3 560**	**3 811**	**3 942**	**4 147**	**4 405**
On nonbanks	634	665	694	822	938	995	1 175	1 215	1 284
On banks	1 512	1 588	1 665	2 011	2 622	2 817	2 767	2 932	3 121
In dollars	1 694	1 797	1 894	2 101	2 534	2 602	2 753	2 882	2 891
In other currencies	452	456	465	732	1 025	1 209	1 189	1 265	1 515
Domestic currencies, on nonresidents	**398**	**402**	**402**	**506**	**672**	**721**	**757**	**801**	**915**
On nonbanks	132	140	142	187	209	229	236	230	222
On banks	266	262	260	319	463	492	521	571	693
In dollars	211	221	215	215	227	206	215	220	221
In other currencies	187	181	187	291	445	515	542	581	694
Total	**2 544**	**2 655**	**2 761**	**3 339**	**4 232**	**4 532**	**4 699**	**4 948**	**5 320**
On nonbanks	766	805	836	1 009	1 147	1 224	1 411	1 445	1 506
On banks	1 778	1 850	1 925	2 330	3 085	3 309	3 288	3 503	3 814
In dollars	1 905	2 018	2 109	2 316	2 761	2 808	2 968	3 102	3 112
In other currencies	639	637	652	1 023	1 470	1 724	1 731	1 846	2 209
Gross liabilities									
Eurocurrencies, to residents and nonresidents	**2 168**	**2 278**	**2 386**	**2 846**	**3 579**	**3 851**	**3 999**	**4 205**	**4 461**
To nonbanks	432	479	497	585	685	740	768	791	808
To official monetary institutions	91	88	96	112	109	125	139	151	151
To other banks	1 645	1 711	1 793	2 149	2 786	2 986	3 085	3 263	3 502
In dollars	1 741	1 846	1 950	2 147	2 553	2 648	2 785	2 936	2 924
In other currencies	427	432	436	699	1 026	1 203	1 214	1 269	1 537
Domestic currencies, to nonresidents	**250**	**260**	**280**	**377**	**494**	**556**	**580**	**638**	**782**
To nonbanks	70	73	80	114	116	134	144	176	191
To banks	180	187	200	263	377	422	436	462	591
In dollars	116	135	146	169	192	192	197	212	262
In other currencies	134	125	134	208	302	364	383	427	520
Total	**2 418**	**2 538**	**2 666**	**3 223**	**4 073**	**4 407**	**4 579**	**4 843**	**5 243**
To nonbanks	502	552	577	699	801	874	912	967	999
To banks and official institutions	1 916	1 986	2 089	2 524	3 272	3 533	3 660	3 876	4 244
In dollars	1 857	1 981	2 096	2 316	2 745	2 840	2 982	3 148	3 186
In other currencies	561	557	570	907	1 328	1 567	1 597	1 696	2 057
Net market size	**1 285**	**1 382**	**1 430**	**1 676**	**1 979**	**2 083**	**2 170**	**2 231**	**2 377**

International bond issues and bank credits

millions of dollars

	1985	1986	1987	1988			Jan-Jun	
				Apr	May	Jun	1987	1988
By country of borrower								
Industrial countries	**225 885**	**273 653**	**253 718**	**28 414**	**26 378**	**26 014**	**122 860**	**170 533**
Australia	14 407	19 251	12 896	1 735	1 568	738	6 003	7 121
Austria	2 435	3 821	4 956	991	180	626	2 279	4 696
Belgium	3 269	5 042	4 537	81	561	474	2 484	2 583
Canada	17 184	23 752	11 356	1 570	1 429	1 941	5 759	9 567
Denmark	3 569	9 813	4 983	691	325	395	3 748	2 692
Finland	1 846	3 578	3 625	190	880	412	2 118	2 993
France	18 773	20 027	15 725	2 284	2 539	2 922	7 847	16 591
Germany	3 452	12 589	10 575	729	290	545	6 674	4 625
Greece	1 587	1 361	1 462	—	119	159	676	628
Ireland	1 881	3 281	2 239	150	43	227	1 069	952
Italy	11 033	12 723	13 551	707	691	466	4 147	4 537
Japan	21 269	35 283	46 523	4 070	2 415	8 214	21 731	24 546
Netherlands	2 299	3 215	5455	383	645	490	2 946	3 234
New Zealand	2 707	7 818	6 400	402	1 630	—	2 973	2 780
Norway	3 905	6 750	6 051	888	564	634	3 647	4 443
Portugal	2 382	2 503	2 159	362	—	—	1 346	1 051
Spain	3 913	7 083	1 932	250	82	329	896	1 604
Sweden	9 890	8 000	5 799	1 889	985	639	3 679	7 167
Switzerland	864	2 247	1 201	664	250	—	635	915
United Kingdom	25 424	24 109	33 025	4 681	5 915	3 318	17 004	29 751
United States	69 193	55 703	45 867	3 598	4 813	3 095	23 258	29 174
*Other**	4 582	5 703	13 350	2 099	454	387	1 940	8 856
Developing countries	**32 964**	**23 884**	**29 195**	**1 005**	**2 155**	**921**	**16 611**	**12 444**
Latin American countries	**8 115**	**3 395**	**10 789**	**94**	**130**	**214**	**8 163**	**4 203**
Argentina	3 700	17	2 305	—	—	—	—	—
Brazil	—	350	—	—	—	—	—	—
Chile	1 085	—	—	—	—	—	—	—
Colombia	1 052	240	137	—	—	—	50	1 000
Mexico	109	313	7 700	—	—	—	7 700	2 556
Venezuela	48	—	30	34	—	—	—	134
*Other***	2 121	2 475	617	60	130	214	413	513
Asian countries	**18 410**	**14 444**	**13 782**	**617**	**950**	**707**	**6 421**	**5 664**
China	3 192	3 336	4 678	324	520	97	2 049	1 702
India	818	1 795	2 359	82	120	15	960	1 147
Indonesia	451	1 343	1 770	—	30	—	835	330
Hong Kong	2 516	848	323	28	81	—	386	188
Korea	5 898	3 251	2 938	98	115	50	1 496	767
Malaysia	2 219	1 204	554	60	—	69	250	636
Thailand	1 497	1 676	348	—	21	375	169	696
Other	1 819	990	812	25	63	102	276	197
Middle Eastern and African countries	**6 439**	**6 044**	**4 624**	**294**	**1 075**	**—**	**2 026**	**2 577**
Algeria	1 450	1 344	471	—	56	—	241	389
Turkey	1 203	2 754	3 187	294	790	—	1 339	1 733
Other	3 786	1 945	965	—	228	—	446	455
Eastern European countries	**5 236**	**3 941**	**3 716**	**150**	**150**	**389**	**1 757**	**1 079**
Hungary	1 577	1 315	1 951	—	—	314	714	632
Soviet Union	1 489	1 821	1 003	50	150	—	662	273
*Other****	2 169	805	762	100	—	75	380	175
International organizations****	**20 635**	**19 896**	**20 814**	**1 624**	**1 072**	**2895**	**9 424**	**11 761**
By type of instrument and currency								
International bond issues	**167 756**	**228 106**	**180 788**	**19 548**	**19 055**	**24 001**	**100 783**	**119 312**
Eurobonds	136 731	188 747	140 535	16 249	15 476	20 964	85 389	95 688
U.S. dollar	97 782	119 096	58 070	4 805	4 858	10 910	31 235	38 439
Japanese yen	6 539	18 516	22 563	3 098	1 961	1 479	17 145	9 537
German mark	9 491	17 127	15 023	1 413	1 873	889	9 479	11 581
British pound	5 766	10 585	15 051	3 184	3 215	2 665	9 278	15 287
Australian dollar	3 118	3 381	8 826	1 111	989	578	6 052	4 168
European composite units	7 038	7 057	7 397	765	927	1 517	5 262	5 138
Canadian dollar	2 822	5 067	6 003	1 196	1 306	1 769	3 337	7 519
Other	4 174	7 918	7 602	679	347	1 157	3 601	4 019
Foreign bonds	31 025	39 359	40 253	3 299	3 579	3 037	15 393	23 623
Swiss franc	14 954	23 213	24 301	2 148	2 118	2 757	10 301	16 086
U.S. dollar	4 655	6 782	7 416	356	550	—	1 750	2 585
Japanese yen	6 379	5 223	4 071	484	481	143	1 726	2 625
Other	5 037	4 141	4 465	311	429	137	1 616	2 327
International bank credits	**116 964**	**93 269**	**126 655**	**11 645**	**10 701**	**6 219**	**49 869**	**76 505**
Eurocurrency credits	113 317	84 208	115 312	10 455	10 543	5 421	45 749	73 201
Foreign credits	6 647	9 061	11 343	1 190	158	798	4 120	3 304
Total	**284 720**	**321 375**	**307 443**	**31 193**	**29 756**	**30 219**	**150 651**	**195 817**

*Includes multinational organizations. **Includes unallocated. ***Includes COMECON institutions. ****Includes regional development organizations.

Eurocurrency deposit rates

prime banks' bid rates, at or near end of month

	1985	1986	1987	1988						
	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Eurodollar										
overnight	12.25	22.00	6.75	6.69	6.69	6.75	6.88	7.31	7.44	7.56
one month	8.00	6.50	7.06	6.69	6.69	6.69	7.00	7.44	7.69	8.00
three months	7.88	6.25	7.37	6.81	6.69	6.81	7.19	7.63	7.81	8.31
six months	7.88	6.12	7.50	6.87	6.75	7.06	7.44	7.81	7.94	8.50
twelve months	7.94	6.12	7.81	7.25	7.12	7.44	7.88	8.31	8.25	8.75
Euro-Canadian dollar										
one month	9.00	8.00	8.00	8.50	8.25	8.25	8.44	8.81	8.69	9.00
three months	9.00	8.12	8.12	8.37	8.37	8.37	8.75	8.94	9.06	9.38
six months	9.00	8.19	8.44	8.50	8.37	8.62	8.88	9.19	9.31	9.63
twelve months	9.00	8.31	8.87	8.75	8.75	9.00	9.25	9.63	9.63	10.00
Euro-French franc										
one month	12.50	10.12	8.75	7.50	7.25	7.81	8.00	7.31	7.25	7.13
three months	13.00	10.37	9.00	8.00	7.75	8.31	8.25	7.50	7.38	7.38
six months	13.13	9.75	9.25	8.25	8.19	8.44	8.38	7.63	7.63	7.75
twelve months	12.25	8.75	9.25	8.50	8.50	8.56	8.50	8.00	7.88	8.06
Euromark										
one month	4.75	5.12	3.25	3.19	3.31	3.25	3.31	3.31	4.25	5.00
three months	4.75	4.87	3.37	3.25	3.31	3.31	3.44	3.56	4.38	5.06
six months	4.75	4.81	3.50	3.31	3.37	3.37	3.63	3.81	4.50	5.31
twelve months	4.81	4.81	3.75	3.56	3.50	3.56	3.81	4.19	4.69	5.50
Euro-Dutch guilder										
one month	5.75	6.31	4.50	3.94	3.94	3.87	3.88	3.81	3.94	5.00
three months	5.75	6.00	4.62	4.00	4.00	3.87	3.94	3.94	4.31	5.25
six months	5.81	5.87	4.69	4.12	4.06	4.06	4.06	4.13	4.56	5.44
twelve months	5.88	5.81	4.81	4.37	4.12	4.19	4.19	4.44	4.81	5.50
Euro-Swiss franc										
one month	3.88	3.94	2.50	1.25	1.37	1.62	2.06	2.81	3.38	3.44
three months	4.00	3.94	3.00	1.81	1.69	1.87	2.25	2.88	3.44	3.88
six months	4.00	3.87	3.19	2.37	2.12	2.19	2.44	2.94	3.56	4.13
twelve months	4.06	3.87	3.25	2.87	2.69	2.62	2.75	3.13	3.63	4.25
Eurosterling										
one month	11.69	11.12	8.56	8.44	9.00	8.44	8.06	7.38	9.38	10.38
three months	11.81	11.12	8.81	8.69	9.31	8.56	8.31	7.75	9.94	10.81
six months	11.81	11.06	9.00	8.87	9.50	8.69	8.69	8.25	10.06	10.88
twelve months	11.69	11.06	9.31	9.25	9.75	9.00	9.06	8.81	10.25	11.00
Euroyen										
one month	7.13	4.56	4.00	4.06	4.37	4.00	3.81	4.06	4.13	4.38
three months	6.56	4.50	4.12	4.12	4.19	4.00	3.94	4.06	4.38	4.63
six months	6.50	4.37	4.12	4.12	4.19	4.12	4.13	4.25	4.56	4.75
twelve months	6.38	4.31	4.12	4.19	4.19	4.19	4.25	4.31	4.69	4.75
European currency unit										
one month	9.63	8.56	6.62	5.87	6.12	6.19	6.13	5.63	5.06	6.94
three months	9.63	8.44	6.75	6.19	6.31	6.37	6.38	6.00	6.44	7.25
six months	9.63	8.06	6.87	6.37	6.44	6.44	6.50	6.31	6.69	7.56
twelve months	9.63	7.31	7.00	6.62	6.62	6.62	6.69	6.56	6.94	7.69

International bond yields

average yield of several actively traded, high quality issues with a maturity of 7 to 12 years at or near end of month

	1985	1986	1987					1988		
	Dec	Dec	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
United States companies										
Eurodollar	9.68	8.67	9.99	10.95	10.41	10.21	10.31	10.24	9.79	9.78
Euromark	6.73	6.62	6.82	6.87	7.04	6.74	6.69	6.54	6.27	6.33
Swiss franc	5.49	5.70	5.43	5.50	5.83	5.56	5.71	5.57	5.66	5.61
European governments										
Eurodollar	10.52	9.91	11.41	11.81	11.63	11.63	11.64	11.48	11.38	11.50
Euromark	7.03	6.77	6.65	6.76	6.61	6.61	6.21	6.23	6.07	6.06
Swiss franc	4.91	4.51	4.38	4.39	4.54	4.15	4.11	4.05	3.71	3.88
European currency unit	10.23	10.20	10.43	10.46	11.10	11.06	10.84	10.85	10.56	10.35

Central bank discount rates

at or near end of month

	1985	1986	1987	1988					Current	
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug 15 1988	effective since
United States	7.50	5.50	6.00	6.00	6.00	6.00	6.00	6.00	6.50	Aug 9, 88
Canada	9.49	8.47	8.66	8.78	9.12	9.17	9.44	9.54	9.74	Aug 11, 88
Austria	4.00	4.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	Dec 3, 87
Belgium	9.75	8.00	7.00	6.50	6.50	6.50	6.75	7.00	7.25	Aug 11, 88
Denmark	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Oct 27, 83
Finland	9.00	7.00	7.00	7.00	7.00	8.00	8.00	8.00	8.00	May 16, 88
France	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	4.00	3.50	2.50	2.50	2.50	2.50	3.00	3.00	3.00	Jun 30, 88
Ireland	10.25	13.25	9.25	9.25	8.50	8.00	8.00	8.00	8.00	May 30, 88
Italy	15.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	Aug 28, 87
Netherlands	5.00	4.50	3.75	3.25	3.25	3.25	3.50	3.75	3.75	Jul 28, 88
Portugal	19.00	16.00	14.50	14.00	14.00	13.50	n.a.	n.a.	13.50	May, 88
Spain	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	10.50	7.50	7.50	7.50	8.50	8.50	8.50	8.50	8.50	Apr 29, 88
Switzerland	4.00	4.00	2.50	2.50	2.50	2.50	2.50	2.50	2.50	Dec 4, 87
United Kingdom	11.31	10.81	8.37	8.37	7.88	7.38	9.38	10.38	10.88	Aug 8, 88
Japan	5.00	3.00	2.50	2.50	2.50	2.50	2.50	2.50	2.50	Feb 23, 87
New Zealand	19.80	24.60	18.55	17.80	19.70	17.15	16.95	16.90	15.70	Aug 15, 88
South Africa	13.50	10.00	9.80	10.80	10.80	11.80	11.80	12.80	12.80	Jul 29, 88
Argentina*	5.00	11.19	17.59	18.38	19.10	21.58	23.04	27.80	27.80	Jul, 88
Korea	5.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Jul 10, 86
Philippines	11.50	9.64	9.25	9.11	9.09	9.10	n.a.	n.a.	n.a.	
Singapore	5.00	5.00	5.00	3.50	3.50	3.50	3.50	3.50	3.50	Feb, 88
Thailand	11.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Sep 1, 86
Venezuela	12.94	12.79	12.49	12.98	12.92	n.a.	n.a.	n.a.	12.92	Apr, 88

*Percent per month.

Day-to-day money rates

monthly averages

	1984	1985	1986	1987	1988						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	8.38	8.27	6.91	6.77	6.83	6.58	6.58	6.87	7.09	7.51	7.75
Canada	10.50	9.23	8.28	8.40	8.44	8.41	8.45	8.28	8.69	8.90	9.25
Austria	7.63	7.25	7.62	4.10	4.50	3.50	3.50	3.65	3.60	4.05	5.75
Belgium	9.12	6.60	5.09	5.09	5.02	4.16	5.10	5.05	4.28	4.62	4.85
Finland	n.a.	n.a.	11.87	8.01	8.09	8.20	8.62	8.26	8.13	n.a.	n.a.
France	10.95	9.02	7.80	8.23	7.80	7.26	7.54	7.55	7.34	7.11	7.19
Germany	5.62	4.64	5.00	3.19	3.13	3.32	3.24	3.25	3.30	3.74	4.43
Ireland	14.50	9.62	13.00	7.50	8.00	8.50	8.25	8.00	7.38	n.a.	7.38
Italy	17.25	14.75	11.42	10.25	10.60	9.87	10.14	9.95	11.41	11.27	11.00
Netherlands	5.60	5.75	6.19	4.25	4.12	3.87	3.94	4.00	3.94	3.69	4.55
Norway	12.50	12.50	14.00	14.02	13.88	13.87	13.91	14.03	13.51	n.a.	n.a.
Spain	12.18	9.92	11.76	14.02	13.20	12.13	11.40	11.01	10.81	10.47	n.a.
Sweden	11.88	11.83	8.89	8.43	8.75	9.37	9.61	9.71	10.58	10.55	10.50
Switzerland	1.50	2.00	1.12	0.50	0.50	1.00	1.25	2.13	2.25	2.50	3.38
United Kingdom	6.31	9.72	9.19	7.60	8.26	8.28	8.55	8.13	7.51	9.25	8.99
Australia	10.98	18.37	15.40	10.37	10.23	10.25	10.33	10.36	11.20	11.79	n.a.
Japan	6.41	8.02	4.18	3.81	3.54	3.39	3.53	3.34	3.24	3.48	3.65
South Africa	21.13	12.50	8.50	9.76	9.75	9.25	9.85	10.00	10.90	11.34	n.a.
Argentina*	17.75	4.50	7.00	14.90	16.40	14.90	17.60	18.18	19.70	22.60	26.10
Brazil	272.02	352.23	83.05	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Hong Kong	6.80	6.10	3.90	0.56	0.58	1.83	2.84	3.64	6.02	7.21	7.09
Korea	10.00	8.80	9.00	9.20	9.30	9.20	9.40	n.a.	n.a.	n.a.	n.a.
Philippines	15.22	15.03	9.92	22.53	14.94	9.41	13.86	15.66	13.66	n.a.	n.a.
Singapore	6.01	4.53	3.51	2.57	2.73	2.93	3.01	3.08	3.56	n.a	3.97
Taiwan	8.07	4.50	4.00	4.56	5.11	5.52	5.37	5.23	4.37	5.65	n.a.

*Percent per month.

Treasury bill rates

bond equivalent yields, at or near end of month

	1984	1985	1986	1987	1988						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	8.12	7.28	5.83	5.84	5.80	5.78	5.87	6.15	6.67	6.56	6.95
Canada	9.84	9.24	8.24	8.41	8.37	8.32	8.53	8.87	8.92	9.19	9.29
Belgium	10.90	9.89	7.50	6.84	6.44	6.24	6.18	6.18	6.18	6.18	7.20
Ireland	15.10	11.15	13.60	8.69	8.34	8.76	8.33	7.83	7.17	7.47	7.61
Italy	14.69	13.10	10.00	11.66	11.37	10.78	10.78	10.81	10.82	10.63	n.a.
Netherlands	5.88	5.69	6.37	4.95	4.75	4.25	4.12	4.38	4.25	4.13	5.38
Spain	12.27	9.52	8.37	6.67	5.56	5.83	10.17	n.a.	10.25	n.a.	n.a.
Sweden	11.83	12.49	9.20	9.05	9.20	9.32	9.58	10.70	10.29	10.37	10.50
United Kingdom	9.33	11.49	10.79	8.38	8.38	9.01	8.26	7.98	7.28	9.24	10.53
Australia	12.27	19.40	14.91	10.06	9.92	10.44	9.83	10.40	11.60	11.31	12.10
Japan	4.91	4.91	2.89	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38
New Zealand	13.50	17.62	19.69	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
South Africa	21.94	12.99	8.84	8.85	9.49	9.55	10.51	10.97	11.61	11.91	12.06
Brazil	273.03	379.77	149.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mexico	48.67	72.98	104.03	133.04	155.67	153.86	75.16	54.51	44.81	33.30	32.45
Philippines	47.14	16.45	9.55	13.35	13.52	11.57	13.88	14.94	15.10	14.36	14.50
Singapore	2.91	2.94	2.10	3.23	2.92	2.97	2.97	3.02	3.36	n.a.	3.87

Representative money market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money market instruments other than Treasury bills, at or near end of month

	1984	1985	1986	1987	1988						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	8.49	8.02	6.64	7.21	6.90	6.77	6.90	7.20	7.75	7.87	8.29
Canada	10.00	9.40	8.35	8.90	8.65	8.55	8.65	8.94	9.32	9.30	9.55
Belgium	10.85	9.89	7.60	6.97	6.65	6.37	6.26	6.24	6.24	6.24	7.35
France	10.69	9.12	8.37	8.56	8.06	7.44	8.25	7.88	7.31	7.31	7.44
Germany	5.75	4.80	4.85	3.65	3.23	3.28	3.40	3.55	3.60	4.40	5.20
Ireland	15.13	12.00	14.06	8.81	8.62	8.94	8.38	8.13	7.38	7.87	7.87
Italy	16.88	15.13	11.37	11.50	10.75	11.13	11.13	10.38	11.00	n.a.	11.25
Netherlands	5.75	5.75	6.19	4.56	4.32	4.06	4.06	4.13	4.19	4.56	5.31
Portugal	24.57	20.71	16.07	14.34	13.97	13.43	13.03	n.a.	n.a.	n.a.	n.a.
Spain	12.21	10.51	11.79	13.59	12.30	12.01	11.06	10.90	11.11	10.44	n.a.
Switzerland	5.00	4.75	4.50	3.56	1.69	1.81	1.88	2.13	2.75	3.31	4.00
United Kingdom	9.88	12.75	11.25	8.94	8.31	9.38	8.56	8.31	7.81	9.88	10.94
Australia	12.90	19.75	15.10	11.25	10.85	10.90	11.50	11.55	12.87	13.20	13.15
Japan	6.33	7.03	4.34	3.90	3.85	3.80	3.80	3.75	3.80	3.84	3.97
New Zealand	15.00	20.00	24.25	17.70	17.00	17.35	n.a.	17.20	15.75	15.70	15.20
South Africa	22.78	13.35	8.55	8.90	9.60	10.25	10.90	11.85	12.65	12.10	12.65
Chile	20.68	22.42	19.56	15.25	11.35	10.69	21.41	20.84	11.09	9.90	n.a.
Hong Kong	8.25	6.50	4.62	1.50	3.00	3.87	4.12	5.13	7.31	8.00	8.50
Indonesia	19.00	15.00	19.50	17.50	17.00	18.50	22.50	18.50	19.00	18.75	19.25
Korea	8.00	8.00	8.00	7.50	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Malaysia	10.30	8.20	6.00	n.a.	n.a.	n.a.	n.a.	3.70	3.85	3.85	3.55
Philippines	33.21	14.61	8.31	10.55	12.12	10.21	11.30	12.75	12.75	13.00	13.50
Singapore	7.00	5.88	3.94	3.25	3.13	3.13	3.19	n.a.	n.a.	n.a.	n.a.
Taiwan	7.85	4.10	3.87	3.09	4.12	4.47	4.23	4.48	4.30	5.29	n.a.

Commercial bank deposit rates

at or near end of month

	1984	1985	1986	1987	1988						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	8.34	7.72	6.26	7.10	6.67	6.57	6.69	7.05	7.54	7.65	8.11
Canada	10.05	9.40	8.15	8.40	8.50	8.45	8.60	8.91	8.99	9.25	9.36
Austria	7.50	6.50	5.50	4.25	4.40	4.05	3.90	3.90	3.95	4.35	5.60
Belgium	10.63	9.63	7.44	6.69	6.31	6.25	6.19	6.00	6.06	6.25	7.13
Denmark	6.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	n.a.	n.a.
Finland	14.55	10.75	13.36	10.12	9.10	9.54	9.62	9.41	9.35	9.15	n.a.
France	7.34	6.24	4.50	4.50	4.50	4.50	4.50	7.69	7.31	7.19	7.25
Germany	5.25	4.40	4.80	3.50	3.20	3.20	3.25	3.40	3.40	3.30	4.90
Ireland	14.63	11.87	13.75	8.62	8.50	8.75	8.25	7.75	7.25	7.56	7.75
Italy	11.64	13.21	10.69	n.a.	n.a.	n.a.	n.a.	9.50	9.50	9.50	9.30
Netherlands	5.69	5.81	6.06	4.50	4.21	3.94	4.00	4.06	4.06	4.44	5.31
Norway	12.75	12.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	28.00	20.00	15.00	14.00	14.00	13.50	13.50	13.50	n.a.	n.a.	n.a.
Spain	11.64	9.64	8.67	9.48	9.39	9.30	9.17	9.05	9.03	n.a.	n.a.
Sweden	11.45	12.18	9.93	9.45	9.55	9.55	9.95	10.95	10.60	10.45	10.65
Switzerland	4.50	4.50	4.25	3.37	1.44	1.56	1.63	1.88	2.50	3.06	3.38
United Kingdom	9.88	11.75	11.19	8.81	8.75	9.25	8.37	8.13	7.63	9.75	10.75
Australia	12.75	18.80	15.56	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Japan	6.38	7.04	4.55	4.42	4.33	4.41	4.38	4.25	4.30	4.37	4.75
New Zealand	15.25	19.98	23.50	16.85	16.00	n.a.	14.60	15.50	15.50	15.30	15.00
South Africa	22.88	13.20	8.65	10.25	11.20	11.90	11.90	12.70	14.00	13.00	n.a.
Argentina*	31.23	5.40	8.41	14.00	15.12	14.30	17.10	18.10	18.70	21.50	24.30
Brazil	27.00	18.00	220.00	17.50	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Chile	20.68	23.60	20.98	14.84	11.75	9.25	19.84	17.73	9.77	6.42	n.a.
Hong Kong	8.25	6.50	4.62	1.50	3.00	3.87	4.12	5.13	7.31	8.00	8.50
Korea	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Malaysia	9.58	7.00	6.33	n.a.	n.a.	n.a.	n.a.	3.50	3.85	3.85	3.60
Mexico	47.45	72.90	94.30	120.35	118.99	118.80	75.97	53.01	45.27	33.04	29.90
Philippines	31.01	12.34	7.75	11.19	9.65	9.27	10.09	12.00	11.68	12.95	n.a.
Singapore	6.13	5.26	4.00	3.13	3.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Taiwan	6.50	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	n.a.
Venezuela	12.50	8.00	8.00	8.95	8.97	8.94	8.85	8.96	n.a.	n.a.	n.a.

*Percent per month.

Domestic government bond yields

long-term issues, at or near end of month

	1984	1985	1986	1987	1988						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	11.61	9.49	7.79	8.95	8.42	8.39	8.82	9.07	9.31	8.88	9.23
Canada	11.66	10.04	9.23	10.34	9.74	9.61	10.13	10.36	10.38	10.13	10.42
Austria	8.03	7.61	7.33	6.89	6.83	6.80	6.71	6.62	6.61	6.62	6.61
Belgium	11.56	9.60	7.70	8.04	7.58	7.38	7.65	7.62	7.89	7.88	8.05
Denmark	14.60	9.67	11.70	12.05	11.18	10.91	11.22	11.44	10.71	n.a.	n.a.
Finland	11.31	11.07	10.26	7.67	7.40	7.40	7.41	7.43	7.15	7.19	7.18
France	12.70	11.33	9.89	10.57	9.73	9.33	9.61	9.42	9.38	9.07	n.a.
Germany	7.17	6.57	6.25	6.51	6.50	6.28	6.30	6.53	6.66	6.67	6.86
Ireland	14.90	11.84	12.97	10.45	10.61	10.41	10.12	9.74	9.80	9.60	9.68
Italy	14.52	13.66	10.05	10.50	10.29	10.30	10.29	10.39	10.49	10.47	n.a.
Netherlands	7.72	6.96	6.40	6.32	6.17	5.99	6.01	6.21	6.36	6.46	6.59
Norway	12.00	13.00	13.24	13.29	13.35	13.16	13.24	13.23	12.84	n.a.	n.a.
Portugal	22.23	16.64	14.49	14.80	14.70	14.50	14.10	n.a.	n.a.	n.a.	n.a.
Spain	13.93	12.52	10.36	13.14	12.48	11.91	11.82	11.35	11.63	11.27	n.a.
Sweden	12.04	12.11	10.66	11.39	11.30	10.96	11.05	11.41	11.21	11.06	11.26
Switzerland	4.60	4.42	4.05	3.95	3.94	3.93	3.92	3.77	3.98	4.15	4.29
United Kingdom	10.25	10.35	10.17	9.47	9.26	9.10	8.96	9.14	9.17	9.43	9.36
Australia	13.50	14.85	13.40	12.85	12.40	12.30	11.90	11.50	12.30	11.95	11.97
Japan	6.47	5.92	4.61	4.88	4.23	4.36	4.43	4.45	4.60	4.86	4.90
New Zealand	16.90	17.00	16.00	14.30	14.00	13.30	12.90	13.31	12.94	12.70	12.90
South Africa	16.55	18.09	15.06	15.70	16.80	16.52	16.60	16.48	16.40	16.06	16.17
Philippines	18.54	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Venezuela	14.00	12.00	12.00	12.50	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Commercial bank lending rates to prime borrowers

at or near end of month

	1984	1985	1986	1987	1988						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	10.75	9.50	7.50	8.75	8.50	8.50	8.50	8.50	9.00	9.00	9.50
Canada	11.25	10.00	9.75	9.75	9.75	9.75	9.75	10.25	10.25	10.75	10.75
Austria	9.25	9.00	9.00	8.25	8.25	8.25	8.25	8.25	8.25	8.25	8.25
Belgium	14.00	11.50	9.75	8.75	8.75	8.50	8.50	8.50	8.50	8.50	9.00
Denmark	10.50	8.50	8.00	9.50	9.50	9.50	9.50	9.50	9.50	n.a.	n.a.
Finland	10.68	10.37	8.81	8.99	9.03	9.05	9.07	9.12	9.89	9.89	n.a.
France	12.00	10.60	9.60	9.60	9.60	9.60	9.60	9.60	9.60	9.60	9.25
Germany	7.75	7.25	6.75	6.25	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Ireland	15.75	12.50	15.75	11.50	11.50	11.50	11.50	11.25	11.25	n.a.	10.75
Italy	18.00	15.88	13.00	13.00	12.50	12.62	12.62	12.63	12.63	12.50	12.50
Netherlands	6.25	6.25	7.12	4.87	4.62	4.25	4.12	4.38	4.25	4.25	5.25
Norway	13.00	12.40	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	29.00	22.50	17.50	18.50	18.50	18.00	18.00	18.00	n.a.	n.a.	n.a.
Spain	15.84	14.75	14.22	16.34	16.10	15.76	15.42	15.23	14.79	14.33	n.a.
Sweden	14.50	15.05	11.50	11.50	11.50	11.50	11.50	11.50	12.00	12.00	12.00
Switzerland	6.00	6.00	5.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
United Kingdom	9.50	11.50	11.00	8.50	8.50	9.00	8.50	8.00	7.50	9.50	10.50
Australia	14.00	21.00	18.50	14.00	13.50	13.50	13.50	13.75	14.50	15.00	n.a.
Japan	5.50	5.50	3.75	3.37	3.37	3.37	3.37	3.38	3.38	3.38	3.38
New Zealand	14.00	21.00	23.00	18.75	18.75	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
South Africa	24.00	16.50	12.00	12.50	13.00	13.00	14.00	14.00	15.00	15.00	16.00
Argentina*	32.05	7.30	11.30	14.80	15.80	15.00	17.60	17.92	19.50	22.70	25.60
Brazil**	31.00	19.00	250.00	19.50	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Chile	60.82	33.34	29.13	30.99	21.22	20.51	25.49	31.64	21.88	18.51	n.a.
Hong Kong	11.00	7.00	6.50	5.50	5.25	6.00	6.00	6.50	7.50	8.50	9.00
Indonesia	23.50	18.75	19.75	20.50	20.50	20.50	20.50	21.00	22.00	22.00	22.00
Korea	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Malaysia	12.00	10.50	10.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mexico	47.54	65.66	95.33	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Philippines	44.00	15.00	10.50	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	9.40	7.20	6.10	6.10	5.98	5.93	5.85	5.85	5.85	5.85	5.85
Taiwan	10.00	9.50	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Venezuela	16.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	n.a.	n.a	n.a.

*Percent per month. **Spread above monetary correction until Feb 86; nominal rate of interest until Jan 87; spread above LBC rate thereafter.

Domestic corporate bond yields

long-term issues, at or near end of month

	1984	1985	1986	1987	1988						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	12.25	10.15	8.88	9.90	9.38	9.45	9.85	10.25	10.38	10.13	10.20
Canada	12.42	10.74	10.18	10.95	10.37	9.96	n.a.	10.97	10.86	n.a.	n.a.
France	12.94	11.76	10.18	10.92	10.38	9.91	10.03	9.78	9.77	9.60	n.a.
Germany	7.20	6.90	6.50	6.70	6.70	6.70	6.60	6.60	6.80	6.80	n.a.
Netherlands	7.51	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Spain	18.32	14.92	13.40	16.15	15.79	14.68	14.78	14.22	14.03	13.91	n.a.
Sweden	12.33	13.25	11.99	12.31	12.20	11.83	11.94	12.20	12.15	11.45	11.70
Switzerland	5.09	4.93	4.72	4.60	4.50	4.39	4.39	4.29	4.36	4.46	4.44
United Kingdom	11.64	11.47	11.71	11.11	10.76	10.82	10.66	10.55	10.69	10.79	10.86
Japan	7.10	6.79	5.93	5.32	5.06	5.03	4.99	4.93	4.95	4.97	n.a.
Korea	15.00	13.60	12.80	12.80	12.80	13.20	13.70	13.90	14.90	15.10	n.a.
Venezuela	18.00	17.00	17.00	18.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Key to data in tables

I. International markets

Data on the *international banking market size* are based on resident and nonresident Eurocurrency (i.e., foreign currency) assets and liabilities and on nonresident domestic currency assets and liabilities of banks in nearly all European countries, the Bahamas, Bahrain, Canada, Cayman Islands, Hong Kong, Japan, Netherlands Antilles, Panama, Singapore, and the United States. All assets and liabilities of international banking facilities (IBFs) of banks in the United States are treated as Eurocurrencies.

An *international bond issue* may be either a Eurobond issue or a foreign bond issue. A *Eurobond issue* is one placed principally in countries other than that of the currency in which the bond is denominated, usually through an international syndicate. A *foreign bond issue* is one issued by a nonresident borrower on the market of a single country and denominated in that country's currency. Data on new international bond issue volume include all publicly announced issues of straight bonds, convertibles, bonds with warrants, floating rate notes, and certificates of deposit with an original maturity of three years or more (one year or more beginning in 1985), whether publicly or privately placed.

An *international bank credit* may be either a Eurocurrency credit or a foreign credit. A *Eurocurrency credit* is one denominated in a currency that is foreign to the country of the bank office extending the credit. *A foreign credit* is one extended to a nonresident borrower and denominated in the domestic currency of the country in which the bank office extending the credit is located. Data on new international bank credit volume include all publicly announced bank credits with an original maturity of one year or more (term loans, revolving lines of credit, and facilities to back up the issuance of other financial instruments such as commercial paper, short-term notes, certificates of deposit and banker's acceptances).

Data on international bond issues and bank credits through 1984 were compiled by Morgan Guaranty Trust Company. Beginning in January 1985 these data are based on figures published in the OECD's *Financial Statistics Monthly*.

II. Domestic markets

Central bank discount rates

Rates shown are the official discount rates with the exception of:

Ireland — Short Term Facility rate.

South Africa — discount rate for 90-day banker's acceptances.

United Kingdom — rate of discount for outright purchases of 15- to 33-day bank bills.

Day-to-day money rates

Argentina—7-day interbank money regulated by the central bank.

Austria — day-to-day interbank rate.

Australia — effective interest rate in the official short-term money market.

Belgium — day-to-day loan rate in the call money market.

Brazil — interbank overnight money.

Canada—chartered banks' day-to-day loans.

Finland — interbank overnight call money.

France — interbank call money against private paper.

Germany — interbank call money.

Hong Kong — interbank 24-hour call rate.

Ireland — interbank call money.

Italy — interbank 48-hour call money.

Japan—Tokyo interbank call money, unconditional lenders rate.

Korea — overnight interbank call money.

Netherlands — open-market call money.

Norway — day-to-day interbank rate.

Philippines — interbank call loan rate.

Singapore — interbank overnight money.

South Africa — discount houses basic call rate.

Spain — day-to-day interbank rate.

Sweden — interbank call money.

Switzerland — call money.

Taiwan — private interbank overnight loan rate.

United Kingdom — call money.

United States — federal funds rate.

Treasury bill rates

Australia — 13-week Treasury notes at tender.

Belgium — new issue of 3-month Treasury certificates.

Brazil — 3-month Treasury bills.

Canada — 3-month Treasury bills at tender.

Ireland — 3-month central bank exchequer bills at tender.

Italy — 6-month Treasury bills.

Japan — 60- to 62-day noninterest-bearing discount government bills.

Mexico — 3-month Federal Treasury bills.

Netherlands — 3-month Treasury bills.

New Zealand — tap issue rate for 3-month Treasury bills until December 1984. As of January 1985, 3-month Treasury bills at tender.

Philippines — simple average of 91-day Treasury bills at tender until June 1984. Beginning July 1984 rates refer to the weighted average interest rate on 91- to 183-day Treasury bills sold to banks under negotiated basis.

Singapore — 91-day Treasury bills at tender.

South Africa — 3-month Treasury bills at tender.

Spain — 3-month Treasury bill repos reported by the Bank of Spain until January 1988. As of February 1988 secondary market yield on 3-month Treasury notes (average of quotations during the month).

Sweden — new issues of 3-month Treasury bills until June 1982. New series as of July 1982, 6-month Treasury discount notes, market rate.

United Kingdom — 91-day Treasury bills at tender.

United States — 3-month Treasury bills.

Representative money-market rates

Australia — buying rate for 90-day bank accepted commercial bills.

Belgium — 4-month Fonds des Rentes certificates.

Canada — 3-month prime finance company paper.

Chile — central bank 60-day fixed rate promissory notes (PDBC) at tender.

France — 3-month interbank money against private paper.

Germany — 3-month interbank deposits.

Hong Kong — 3-month interbank deposits.

Indonesia — 1-month interbank deposits.

Ireland — 3-month interbank deposits.

Italy — 3-month interbank deposits.

Japan — 3-month "gensaki" rate.

Korea — 3-month financial bill.

Malaysia — 3-month interbank deposits.

Netherlands — 3-month interbank deposits.

New Zealand — 90-day commercial bills.

Philippines—weighted average interest rate for 90-day promissory rates.

Portugal — average of 30- to 90-day interbank deposits.

Singapore — 3-month banker's acceptances until July 1987. As of August 1987 3-month commercial bills.

South Africa—90-day banker's acceptances.

Spain — 3-month interbank rate reported by the Bank of Spain (average of quotations during the month).

Switzerland — 3-month interbank deposits.

Taiwan — 90-day banker's acceptances.

Thailand — interbank call money.

United Kingdom — 3-month interbank deposits.

United States — 3-month prime industrial paper.

Commercial bank deposit rates

Argentina — nominal 30-day time deposits. Average of bank rates published by the central bank until August 1984. New series as of September 1984, 30-day acceptances maximum interest rate.

Austria — 3-month time deposits.

Australia — 3-month certificates of deposit.

Belgium — special maximum rate for 3-month time deposits in large amounts.

Brazil — 6-month certificates of deposit with prefixed yields until July 1982. New series as of August 1982, 6-month certificates of deposit reported as a spread above monetary correction which is set every month in relationship to inflation.

Canada — 3-month time deposits.

Chile — 30-day time deposits.

Denmark — time deposits of 3-months' notice.

Finland — 3-month certificate of deposit.

France — 3-month time deposits of FF 1,000,000 until February 1988. As of March 1988, 3-month certificates of deposit.

Germany — 3-month time deposits in large amounts.

Hong Kong — negotiable 3-month time deposits of more than HK$500,000.

Ireland — 3-month deposits.

Italy — 3-month time deposits of Lit. 100 million or more.

Japan — 90-day negotiable certificates of deposit issued by the Tokyo office of Morgan Guaranty Trust Company.

Korea — 3-month time deposits.

Malaysia — 3-month time deposits.

Mexico — 3-month certificates of deposit until September 1983. New series as of October 1983, 3-month promissory notes.

Netherlands — 3-month time deposits in large amounts.

New Zealand — 6-month transferable certificates of deposit.

Norway — 3-month special term deposits.

Philippines — weighted average interest rates on 60- to 90-day time deposits of sample commercial banks.

Portugal — 90- to 180-day time deposits until May 1984. New series as of June 1984, 180-day to one-year time deposits.

Key to data in tables — continued

Singapore — 3-month certificates of deposit.
South Africa — 3-month negotiable certificates of deposit.
Spain — deposits over 6 months and less than 1 year for Pts. 1 million or more reported by the Bank of Spain.
Sweden — 3-month certificates of deposit.
Switzerland — 3-month time deposits.
Taiwan — maximum rate for 3-month time deposits.
Thailand — 3-month time deposits.
United Kingdom — 3-month time deposits.
United States — 3-month negotiable certificates of deposit issued by Morgan Guaranty Trust Company.
Venezuela — 6-month negotiable certificates of deposit for domestic depositors only.

Domestic government bond yields

Austria — Austrian National Bank average yield on all outstanding government bonds.
Australia — secondary market yield for 10-year Treasury bonds.
Belgium — Belgium National Bank secondary market average yield on central government bonds of more than 5 years' maturity quoted on Brussels Stock Exchange.
Canada — Bank of Canada average yield on all direct government bonds due or callable in 10 years or more.
Denmark — 12% serial bonds maturing 2001 until April 1983. New series as of May 1983, 10% serial bonds maturing 2004.
Finland — rate of interest at issue on central government bonds intended for public subscription, weighted by sales of bonds.
France — INSEE secondary market weighted average yield of public sector bonds with a remaining maturity of 10 years or more.
Germany — Frankfurter Allgemeine Zeitung 10-year public authority bond average.
Ireland — 15-year government bonds.
Italy — average yield on fixed-interest government bonds, not including irredeemable bonds, weighted by the amounts in circulation, for maturities of 9 years or more.
Japan — secondary market average yield on Central government bonds with a maturity of 5 years or more
Netherlands — Central Bureau of Statistics (CBS) average yield on three latest government bonds.
New Zealand — average yield on government bonds maturing after 5 years.
Norway — 5% government bond of 1996 until December 1982. New series as of January 1983, average yield of long-term government bonds.
Philippines — weighted average interest rate of outright sales on secondary transactions for central bank certificates of indebtedness.
Portugal — yield of 4% Centenary Loan of 1940.
South Africa — 25-year government bonds until August 1983; 20-year Republic of South Africa bonds until April 1984; new series as of May 1984, secondary market yield for the 13% due 2005 Republic of South Africa bond.
Spain — Bank of Spain secondary market weighted average yield of several central government issues with more than 2 years' maturity (average of quotations during the month).
Sweden — 15-year government bonds until October 1983. New series as of November 1983, 5-year government bond yield index, market rate.
Switzerland — Swiss Confederation bond average.
United Kingdom — F.T. (*Financial Times*) Actuaries 25-year government stock.
United States — Morgan Guaranty 20-year U.S. Government Bond Index until December 1986. As of January 1987 U.S. Treasury 30-year constant maturity index.
Venezuela — Banco Central average yield on public-sector bond issues.

Commercial bank lending rates to prime borrowers

Argentina — average rate on 30-day loans.
Austria — overdraft rate for prime borrowers, including commission.
Australia — overdraft rate. Maximum indicator rate applying to loans of A$100,000 or more for major trading banks.
Belgium — prime overdraft rate.
Brazil — prefixed rate applied to working capital loans until July 1982; monetary-corrected free rate applied to working capital loans from August 1982 to July 1983. New series as of August 1983, maximum legal rate reported as a spread above monetary correction which is set every month in relationship to inflation. Charges for fees and commissions are often added.
Canada — prime rate.
Chile — average prime rate of six major commercial banks.
Denmark — approximate rate for loans and advances to prime borrowers.
Finland — average rates on total commercial bank lending.
France — base lending rate, excluding a commission of .05% per month on highest debit balance during the month. A spread above base rate is often added.
Germany — approximate effective overdraft rate for prime borrowers.
Hong Kong — prime lending rate set by the Hong Kong Association of Banks.
Indonesia — prime rate for domestic affiliates of foreign companies.
Ireland — AA corporate borrowing rate.
Italy — unsecured overdraft rate for prime borrowers.
Japan — standard rate of interest on short-term loans of especially high credit standing.
Korea — prime rate.
Malaysia — Bank of Commerce Berhad base lending rate.
Mexico — base rate or average cost of money for banks determined monthly by the Banco de Mexico S.A.
Netherlands — overdraft rate for prime borrowers, including commission.
New Zealand — overdraft rate for prime borrowers.
Norway — overdraft rate, including a commission of .25% per quarter on the total line of credit until January 1983. New series as of February 1983, special rate of first class, large borrowers.
Philippines — prescribed administrative ceiling for unsecured loans with maturities of 365 days and below, including charges until December 1982. New series as of January 1983, modal rate to prime borrowers.
Portugal — maximum rate for 90- to 180-day loans.
Singapore — most common overdraft rate, major banks.
South Africa — unsecured overdraft rate for prime borrowers.
Spain — private banks' average interest rate for 1-year loans reported by the Bank of Spain.
Sweden — overdraft rate for prime industrial borrowers, commission not included.
Switzerland — unsecured overdraft rate for prime borrowers, excluding commission of .25% per quarter on average or highest outstanding debit balance in quarter.
Taiwan — maximum rate for 3- to 12-month secured loans. Rate is an indication only and may vary from actual bank lending rate which is subject to volatile interbank rates.
Thailand — prime rate.
United Kingdom — clearing bank base lending rate. A spread above base rate is often added.
United States — prime rate of Morgan Guaranty Trust Company.
Venezuela — representative rate for domestic prime borrowers only.

Domestic corporate bond yields

Canada — McLeod, Young, Weir Co. Ltd., weighted long-term bond yield index for AA corporates.
France — INSEE secondary market weighted average yield of private company bonds with a remaining maturity of 10 years or more.
Germany — Bundesbank secondary market weighted average yield of industrial bonds with a remaining maturity of more than 3 years.
Japan — secondary market yield for industrial bonds.
Korea — average of yields on corporate bonds guaranteed by local banks, with an original maturity of 3- 2- 5-years.
Netherlands — CBS average yield on three 6%-6.5% corporate bonds until December 1981. As of January 1982, CBS secondary market weighted average yield on all commercial bank issues with a quotation between 92% and 103%.
Norway — 5,75% Dalen Portland-Cement bond of 1969-1984 until December 1982. New series as of January 1983 average yield of long-term industrial bonds.
Spain — Bank of Spain seconary market weighted average yield of several corporate issues with more than 3 years' maturity (average of quotations during the month).
Sweden — Central Satistical Bureau average yield on industrial bonds.
Switzerland — average yield on outstanding bonds of four leading Swiss companies. Mixture changed as of January 1982.
United Kingdom — *Financial Times* secondary market average yield of industrial and financial company debentures and loan stocks with an average of 25 years to maturity.
United States — Salomon Brothers index of new issues yields for Aa industrial bonds with five-year call protection.
Venezuela — average of yields on 15-year bond issues of Electricidad de Caracas.

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